

JPRS-TEP-91-001  
23 JANUARY 1991



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# ***JPRS Report***

# **Epidemiology**

19980506 114

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U.S. DEPARTMENT OF COMMERCE  
NATIONAL TECHNICAL INFORMATION SERVICE  
SPRINGFIELD, VA. 22161

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# Epidemiology

JPRS-TEP-91-001

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## ANGOLA

### Minister Says Health Situation 'Very Critical'

MB2112180690 *Luanda Domestic Service in Portuguese*  
1200 GMT 21 Dec 90

[Excerpt] Angolan Health Minister Dr. Flavio Fernandes has described the national health situation as very critical. He said the basic requirements for health development in Angola have been compromised. As major bottlenecks, the minister mentioned the high illiteracy rate as well as the economic and financial collapse, a situation aggravated by the devastating war carried out by UNITA [National Union for the Total Independence of Angola].

Flavio Fernandes said the country has been particularly afflicted by tropical and chronic diseases. [passage omitted]

### Seventeen Deaths From Cholera in Huila Province Each Week

MB1312213690 *(Clandestine) KUP in English to Southern and Central Africa* 1920 GMT 13 Dec 90

[Text] Jamba—A cholera epidemic has broken out in several areas of the southwestern Angolan Province of Huila claiming dozens of lives.

According to reliable reports reaching the UNITA [National Union for the Total Independence of Angola] news agency, KUP, the cholera outbreak was first reported at the MPLA [Popular Movement for the Liberation of Angola] military outpost of Kie situated between the outpost of Chikomba and the town of Natala, but has now spread to surrounding areas.

According to reports an average of 17 people, including FAPLA [People's Armed Forces for the Liberation of Angola] soldiers in the cholera affected areas, are said to be dying each week.

The Luanda authorities are unable to bring in sufficient drugs and vaccines to try and bring the situation under control, the reports add.

Meanwhile, the serious shortage of medical drugs in the province has worsened.

Health institutions in the area, including the Kaluwaembe central hospital, the biggest in the province, have exhausted their medical stocks.

Patients have to rely on the black market for medicine prescribed by hospital authorities.

Malnutrition, brought about by critical famine which has hit the area, is also said to be widespread.

### Cholera Outbreak Kills 270 People

MB2112195690 *(Clandestine) Voice of Resistance of the Black Cockerel in Portuguese to Southern and Central Africa* 0510 GMT 21 Dec 90

[Text] A serious cholera epidemic is afflicting the cities controlled by the [words indistinct] Luanda government. A health official in Luanda reports that 270 people have died in the past few weeks. He added that cholera is spreading to areas not previously afflicted by the epidemic.

Meanwhile, the Luanda government, which is responsible for the situation, has done nothing to curb the outbreak. Reports say cholera broke out in major cities and villages due to a lack of [words indistinct].

### Tse-tse Fly Numbers Decrease in Banza Congo

MB2912083690 *Luanda Domestic Service in Portuguese*  
0600 GMT 29 Dec 90

[Text] The numbers of the tse-tse fly, which is the carrier of sleeping sickness virus, have considerably decreased in Banza Congo city's residential areas. This was disclosed by Felix Maquiate, the supervisor of the campaign against sleeping sickness in Banza Congo District.

Our correspondent in Zaire Province reports:

[Begin unidentified correspondent recording] Our interviewee said that the 160 traps laid in this city and in other places well frequented by the people have permitted the capture of 24,403 tse-tse flies in less than four months. Felix Maquiate also disclosed that 231 confirmed and 1,023 suspected sleeping sickness cases were detected in 1990. He added that his department is more committed than ever to the fight against sleeping sickness and its carrier, the tse-tse fly.

Felix Maquiate regretted the fact that there are still people who, whether through the ignorance or the reluctance of their families, avoid treatment when they are found to suffer from sleeping sickness. [end recording]

## GHANA

### Officials Meet Over 'Alarming' Cholera Outbreaks

AB0501163691 *Accra Domestic Service in English*  
2000 GMT 4 Jan 90

[Text] The director of medical services, Dr. Moses Modibo, today described as alarming the spate of cholera outbreaks in some parts of the country. This, he said, requires concerted efforts toward educating the people on personal hygiene to stop the disease from spreading to other parts of the country. He was addressing a special meeting in Accra to plan strategies for the control of cholera in the Greater Accra Region. We bring you Justice Mingle's report: [Begin recording]

**Mingle:** The meeting, attended by representatives from the mass media, the World Health Organization, revolutionary organs, the Ministry of Health, and the Greater Accra Metropolitan Authority, planned strategies toward controlling cholera in Greater Accra as well as other parts of the country. The participants stressed the need to intensify efforts at educating the people on the outbreak of the disease in the country. They also called for improvement in infrastructure, the drainage system, and the enforcement of food hygiene laws in the country. Dr. Adibo, who opened the meeting, called for an improvement in personal hygiene. This, he said, is crucial to stop the disease from spreading to other parts of the country.

**Adibo:** As all must be aware now, we have a very serious outbreak of cholera. Normally, cholera outbreak or diarrhea diseases outbreaks occur during the rainy season, but in times of water shortage—and that is in the dry season—and in times of famine, we tend to get serious outbreaks of diarrhea diseases. Some of you may remember that in 1983 we had perhaps one of the worst outbreaks of cholera in our history. Needless to say that was the year of all the natural disasters that one could think of from bush fires to famine to repatriation of over 1 million Ghanaians from other West African countries, so all the pressures were on us, and we had what I think is the worst outbreak of cholera since cholera was introduced into this country in 1970.

**Mingle:** The epidemiologist in charge of Greater Accra, Dr. Sam Adjei, said over 1,520 cases of the disease were reported in the region by the end of last week. These were prevalent in areas including Chorkor, Mamprobi, Bubuashie, and Kaneshie. Dr. Phyllis Antwi, also of the Epidemiology Division, said 686 cases, excluding outbreaks in Greater Accra, were reported to her outfit by the end of October last year. She expressed the need for patients to be encouraged to use oral rehydration salts before they seek attention. [end recording]

## MOZAMBIQUE

### Forty-two Children Die of Measles in Cabo Delgado

*MB0601120091 Maputo Domestic Service in Portuguese 1030 GMT 6 Jan 91*

[Text] A total of 42 children died of measles in Nanhupo village, Namuno District, Cabo Delgado Province, from June to July last year. Many children have also been hit by the disease at Moloco administrative post in Namuno District. The local health unit is unable to cope with the situation because of a shortage of vaccines and medicines.

### EEC Donates Funds To Combat Cholera

*MB1312090690 Maputo Domestic Service in Portuguese 0400 GMT 13 Dec 90*

[Text] The EEC has given 215,000 Ecus [European Currency Units], which is about \$270,000, for the fight against cholera in Zambezia Province.

According to a source at the EEC branch in Mozambique, this aid follows a request by France's Medecins Sans Frontieres [Doctors Without Borders] organization for money to implement a program to fight cholera in Zambezia Province and to prevent the disease from spreading to other parts of the country.

The aid accord was signed under the terms of the Lome III Convention.

The cholera epidemic that broke out in Zambezia Province in July has already caused 75 deaths, and there are 1,552 confirmed cholera cases.

### Cholera Kills 170 People in 5 Provinces, Maputo City

*MB1312125390 Maputo Domestic Service in Portuguese 1030 GMT 13 Dec 90*

[Text] The cholera epidemic that has hit the country had killed 170 people in Tete, Sofala, Zambezia, Nampula, and Niassa Provinces and in Maputo city up to the beginning of this month.

The Health Ministry sets the total number of reported cholera cases at 2,800.

### Cholera Deaths in Zambezia Province

*MB2112131990 Maputo Domestic Service in Portuguese 0900 GMT 21 Dec 90*

[Text] A total of 43 people have died of cholera in Mocuba, Zambezia Province, out of over 1,500 cases registered in the province last October. Reports from Quelimane say measures have been undertaken to avoid more cases of cholera in the area.

### Cholera Kills 46 in Mocuba District

*MB2612114390 Maputo Domestic Service in Portuguese 1030 GMT 26 Dec 90*

[Text] A total of 46 people have so far died of cholera in Mocuba District, Zambezia Province, since the outbreak of the disease in the province last October. According to Radio Mozambique in Quelimane, an average of four people are admitted to the Mocuba rural hospital daily suffering from acute diarrhea. The source added that the situation is now under control.

### **New Cholera Outbreak Kills 14 People in Nampula**

*MB0301193291 Maputo Domestic Service in Portuguese  
1730 GMT 3 Jan 91*

[Text] There has been another outbreak of cholera in Nampula Province. It began in December 1990 and killed 14 people out of 114 diagnosed cases.

The Nampula central hospital has received 40 cholera patients so far. According to reports, the hospital's emergency unit continues to receive many people suffering from acute diarrhea, accompanied by vomiting and colic pains.

### **Cholera Kills 11 People in Tete Since November 1990**

*MB0501195791 Maputo Domestic Service in Portuguese  
1730 GMT 5 Jan 91*

[Text] Cholera has killed 11 people in Tete Province since it broke out in November last year. A source in the Tete Province Health Directorate has reported that 641 confirmed cholera cases have been detected in the province since then.

That source also disclosed that the cholera epidemic has been waning in Changara and Moatize districts, as well as in Tete city, following work in those areas to fight the outbreak. The Tete Province Health Directorate, the Construction and Water Directorate, and the Tete City Executive Council have been involved in that work since mid-November 1990. They have been building better latrines and sanitation [words indistinct] and teaching the people about basic hygiene measures.

### **Health Ministry Seeks To Curb Infant Mortality**

*MB2212173690 Maputo Domestic Service in Portuguese  
1030 GMT 22 Dec 90*

[Text] A new strategy to curb infant mortality will be introduced in Mozambique. The Ministry of Health will promote a seminar on this issue in Maputo. Preliminary studies on available information and discussions with international cooperation agencies have already taken place.

Mozambique is one of the countries with the highest rate of infant mortality, with 300 children out of every 100,000 in Maputo dying, and 1,000 out of every 100,000 children in rural areas dying.

### **Sixteen Die of 'Strange Disease' in Nampula Province**

*MB2712124890 Maputo Domestic Service in Portuguese  
1030 GMT 27 Dec 90*

[Text] At least 16 people have died of a strange disease in Nicupa, Erati-Nacoroa District, in Nampula Province. Radio Mozambique correspondents in Nicupa said that the disease's symptoms are similar to those of a cold at

the start. This is followed by a severe headache that leads to insanity and death. They said that another 30 people are suffering from the disease at the Saua-Saua administrative post, but they did not mention deaths. The Erati-Nacoroa District Health Directorate has already been informed of the situation.

## **SOUTH AFRICA**

### **'Highest' Rabies Figures in Natal, KwaZulu**

*MB2112143490 Johannesburg Domestic Service  
in English 1100 GMT 21 Dec 90*

[Text] The number of diagnosed cases of rabies in Natal and KwaZulu this year is the highest recorded in the region. The number of reported cases is 194, compared with 105 last year.

The state veterinarian in Pietersburg [name as heard], Dr. Max Bachman, put the blame on the negligent attitude of dog owners, the shortage of veterinarian staff, and the problem of reaching people in the unresturbed areas.

### **Veterinary Institute Installs Bioreactor**

*91AF0300A Johannesburg ENGINEERING NEWS  
in English 26 Oct 90 p 3*

[Text] The Veterinary Research Institute at Onderstepoort has installed one of the most advanced bioreactor plants in the world.

Officially opened by the Minister of Agriculture, Kraai van Niekerk on October 17, the facility will enable the institute to manufacture a wide range of vaccines to the highest international standards.

Developed, installed and commissioned by B Braun Diesel, Biotech, of Germany, the plant meets P3 containment specifications which represent the highest safety standards for bioreactors.

It is based on Braun's flexible fermentation system known as the Biostat concept.

This consists of a central culture vessel where biological processes take place; a supply system with all instrumentation for temperature control, addition of gases and stirrer drive; and computer hardware and software for measurement, monitoring and automatic control of the process.

The Onderstepoort facility has two Biostat 42 litre fermenters and a 750 litre production fermenter, with ancillary harvesting and substrate tanks, plus a clean-in-place (CIP) system.

Specially built to meet immediate production requirements, the concept can be expanded to offer flexible equipment configurations with fermenters for research or production scale operations.

The initial plant is designed for scale-up conditions, high sterility and reproducibility.

Looking to possible future requirements, the modular design of the culture vessels, peripheral equipment, and measurement and control systems allow a multitude of

combinations, providing options for a swift change of basic components, and technical adaptation for almost all process applications.

Since the initial contract was signed with representatives from B Braun Diesel and its local technical representative Lobotec, the plant has taken just over eighteen months to complete.

Technicians from Germany worked for several weeks at the institute to install and commission the complex fermentation system.

At the same time they were able to provide technical training.

During the plant development stage, Onderstepoort operating staff also visited Braun Diesel Biostat in Germany, to familiarise themselves with the advanced technology.

Now ready for full production, the bioreactor plant will enable the veterinary research institute to meet the vaccine requirements of South Africa, with adequate capacity for major exports to countries around the world, to combat a variety of animal diseases.

## SWAZILAND

### Official on Malaria Statistics, Prevention

MB0501073091 Mbabane THE SWAZI NEWS  
in English 5 Jan 91 p 4

[Report by Vusie Ginindza: "38 Have Malaria"]

[Text] According to Malaria Officer, Mr. Simon Kunene, 39 people have been diagnosed positive of malaria since last December.

He said in 1990, seven people died of the disease.

Breaking up the cases, Mr. Kunene stated that last month two cases were reported from clinics and hospitals and 36 were recorded on the Active Case Detection by the Malaria Team.

He said that in the same period in 1989, a total of 69 cases were recorded which indicates a decrease of 31 cases.

He said this was due to a wide coverage spraying of mosquito infested areas and the cooperation of the public.

"Unlike before, people are now aware of the importance of spraying and they let us into their houses," he said.

Meanwhile, Mr. Kunene advised that in order to completely curb the Malaria problem, the patients should immediately go to the nearest clinic for treatment.

"And if the body does not seem to respond on the third day, go back again and that will be free of charge," he said.

Mr. Kunene warned that if people do not go for treatment in time, they are increasingly infecting the mosquitoes that will go spreading the disease to everyone.

"In this way, I'm sure the problem would be completely eradicated," he said.

## TANZANIA

### Five Dead of Plague in Tanga Region

EA2212165990 Dar es Salaam Domestic Service  
in Swahili 1000 GMT 22 Dec 90

[Excerpt] Lushoto—The plague outbreak in several villages of Lushoto District in Tanga region has been described as serious. A Health Department spokesman in Tanga region said that as of 18 December, there were 30 patients in the various medical centers opened in the areas hit by the disease in Lushoto District. Five people have died since the disease broke out again in the district two weeks ago. The regional spokesman said Manolo village in Mlalo Division was the worst affected. Other villages hit by the disease were (Masereka), Nyata, (Sema), (Goka), Mamboleo, (Mbau), (Mkelei), and (Nyiwelo). [passage omitted]

### Cholera Outbreak Leaves 148 Dead in Rukwa Region

EA1312210490 Dar es Salaam Domestic Service  
in Swahili 0400 GMT 13 Dec 90

[Excerpt] Sumbawanga—In the last five months, 148 people died of cholera in Rukwa Region while 880 patients contracted the disease, 26 of whom are still receiving treatment. Comrade Abeid Mwasajole, Rukwa regional development director, told a joint session of the regional political committee and an Infectious Disease Control Committee in the region that the district most affected by the disease is Mpanda where 165 [as heard] people died and 712 suffered from the disease when it broke out there. [passage omitted]

### Seventy-seven Die From Cholera in Kigoma Region

EA2812091490 Dar es Salaam Domestic Service  
in Swahili 1900 GMT 27 Dec 90

[Text] Kigoma—Seventy-seven of 160 persons affected by cholera in Kigoma region died in the one-month period ending on 23 December. The acting regional medical officer, Geoffrey Mbaruk, said conditions, especially in the coastal villages of Mwamgongo, (Sigunga), and (Zashi) were unsatisfactory. He said one of the reasons for the spread of the disease was that many of those who feared to have been struck by the disease were travelling to other villages, thus increasing the pace of the spread of the disease. He called on the citizens in the affected villages to stay in their villages and receive treatment at the centers set up, which, he said, had enough medicines.

### **Cholera Outbreak; Kibindu Village Under Quarantine**

*EA0401122291 Dar es Salaam Domestic Service  
in Swahili 0700 GMT 3 Jan 91*

[Text] Tanga—Cholera has broken out in Handeni district of Tanga region. The disease broke out at Kibindu village, killing three people up to now. The village has been placed under quarantine and the directive has been issued that the burial of cholera victims be supervised by the health workers. The Tanga regional medical officer of health, Ferdinand Fupi, called on Kibindu villagers and Tanga region residents in general to follow hygienic guidelines in order to curb the spread of the disease. He warned that all those who contravene health and quarantine regulations, for example by selling food to or from areas placed under quarantine would have stern measures taken against them.

In Dar es Salaam, where cholera has spread, up to now 62 people have died out of 518 people who have been affected by the disease between 6 November, when the outbreak occurred, and last month. The city's medical officer of health, Dr. Fathil Omar, has said that until yesterday morning there were 110 patients in Temeke, Ilala, and Mwana Nyamala hospitals, Muhimbili medical center, and Kigamboni health center. sv  
ZAMBIA

### **Cholera Claims 83 Lives in Three Zambian Provinces**

*MB1312135690 Johannesburg International Service  
in English 1100 GMT 13 Dec 90*

[Text] It has been reported in Lusaka that 83 people have died of cholera in three Zambian provinces that are affected by the disease. The Zambian permanent secretary of health, Dr. Evariste Njelasani, said aid had been sent to the provinces concerned to combat the outbreak.

Dr. Njelasani said 666 cases of cholera had been diagnosed in the current outbreak, and 500 patients had been treated and discharged. He said the UN's Children's Fund had given Zambia some equipment to fight the outbreak, and more aid for preventing cholera was expected from the World Health Organization at any time.

### **Ministry Reports 104 Deaths from Cholera Since November**

*MB1912151490 Johannesburg International Service  
in English 1100 GMT 19 Dec 90*

[Text] The Zambian Ministry of Health reports that 104 people have died of cholera in Zambia since an outbreak of the disease began at the town of Mbala in the north-east of the country, last month. The disease spread from Mbala to the Luapula District and the town of Kabwe in the south-west.

The Ministry of Health said it could not contain the epidemic alone. It called on the public to observe basic rules of hygiene to prevent cholera from spreading.

### **United Nations To Help Contain Cholera Outbreak**

*MB2812144690 Johannesburg International Service  
in English 1100 GMT 28 Dec 90*

[Text] The United Nations Development Program has announced that it is to make available medical supplies to Zambia to contain the outbreak of cholera in the country. The supplies will include items such as disinfectants and chlorine for hospitals and other treatment centers.

About 137 people have died in the outbreak which has now spread to the capital, Lusaka.

### **Health Minister Discusses Ndola Cholera Epidemic**

*MB2812173590 Johannesburg SAPA in English  
1709 GMT 28 Dec 90*

[Text] Johannesburg, Dec 28 SAPA—Zambian Health Minister Jeremiah Chijikwa expressed concern about the appalling water and sanitary conditions in suburbs of the city of Ndola in northern Zambia where a high number of cases of cholera were recorded, the SABC's [South African Broadcasting Corporation] Africa desk reports.

Dr. Chijikwa, who is touring the Copperbelt region, said most treatment centres in Ndola and surrounding areas were overcrowded.

He advised clinical staff to discharge cholera patients as soon as they were hydrated and cured.

Dr. Chijikwa was told that nearly 650 cholera patients in the Ndola area had been treated. Of these, 447 had been discharged.

He said 74 people had died of cholera in and around Ndola in the current epidemic.

## **ZIMBABWE**

### **Health Ministry Acts To Prevent Cholera Outbreak**

*MB1912193090 Johannesburg SAPA in English  
1908 GMT 19 Dec 90*

[Text] Harare Dec 19 SAPA—Zimbabwean Health Minister Timothy Stamps on Wednesday urged environmental health officers to report all cases of unusual diarrhoea to prevent any outbreak of cholera, such as the one that recently claimed more than 100 lives in Zambia.

ZIANA News Agency said the minister was especially urging health officers along the northern and eastern



borders of the country. Health officers, he said, had been deployed in all provinces and at entry points into Zimbabwe.

"At every point of entry the health officers check for any symptoms of cholera and food being brought into the country and they should report any unusual cases of diarrhoea."

He said he however wished to assure the public there was no high risk of contracting cholera.

"The public should not fear that they are at excessive risk ... instead, when they go out to either Zambia or Mozambique, they should get a cholera vaccination before they leave," he said.

"However, if there should be an outbreak, we have sufficient tetracycline to treat the disease," he added.

People travelling to Lusaka or beyond had been warned not to eat at what Mr. Stamps described as "unscheduled stops".

Cholera is a water-borne disease usually associated with poor hygiene. It causes severe diarrhoea, vomiting and dehydration, which can be fatal if not quickly treated.

### **Mandatory VD Tests for Job Applicants Planned**

*HK1412022490 Beijing CHINA DAILY in English  
14 Dec 90 p 3*

[By staff reporter Zhu Baoxia]

[Text] Job applicants in China will soon have to undergo VD tests before being allowed to take up their posts.

And people found to have any form of venereal—sexually transmitted—disease will not be allowed to start work in any factory or start studying in any college until they are cured.

Nor will they be allowed to get married or join the army.

The new rules have been drawn up by the Ministry of Public Health which is now putting the finishing touches to a national strategy on VD control which aims to curb the incidence and spread of sexually transmitted diseases such as syphilis and gonorrhoea and to protect the health of the public in general.

The rules stipulate that staff working in hotels, public bath houses, swimming pools, restaurants, stores and nurseries—as well as some pedlars—must also undergo VD tests when receiving their annual health examinations. Those affected must be treated immediately.

The new provisions are likely to be promulgated some time next year after several amendments.

According to Zheng Zhongbo, the official in charge of the Anti-Epidemic Department under the Ministry of Public Health, the incidence of VD has risen throughout the country in recent years, especially in the southern and coastal areas.

Statistics from 16 major inspection stations reveal that about 200 out of every 100,000 people in the south of the country now contract some form of VD each year.

And these sexually transmitted diseases are spreading rapidly towards the rural areas.

By the end of September this year, 70,000 new VD cases had been reported throughout the country, bringing the total number of reported cases to 375,235 over the last three years.

The ministry, which has drawn up its national strategy on VD control in line with the State Epidemic Control Law, is calling for combined efforts from State departments to oversee the work in the fields of public security, civil affairs, press, publishing and education and tourism as well as establishments for women, workers and young people.

And each sector has been given specific tasks in carrying out the national programme.

The ministry is also urging all local governments to set up a comprehensive network to inspect and report on

VD cases and to guarantee the smooth implementation of the campaign nationwide.

Medical institutes at all levels, including private clinics, will be required to report any rapid spread in VD cases in their areas to the anti-epidemic authorities.

Units and individuals who attempt to treat VD patients without official approval from health authorities will be fined between 500 and 3,000 yuan or be forced to close.

Medical staff will be required to respect the principle of confidentiality and to make regular visits to patients.

Units and individuals who turn in outstanding performances in the national programme will be commended and rewarded.

### **Sichuan Province Experiences Drop in Leprosy**

*OW1312080690 Beijing XINHUA in English  
0214 GMT 13 Dec 90*

[Text] Chengdu—Southwest China's Sichuan Province, where leprosy is most prevalent, has witnessed a drop in the number of lepers from 10,000 in 1984 to less than 4,000.

This year, the number of lepers has been reduced to 0.1 per cent in Zhaojue County, the most seriously affected county. In 1984 the province reported 27 counties with serious leprosy problems.

Leprologist Hu Lufang said that the achievement owes a great deal to a caring society as well as to the efforts of hospitals. The provincial government allocates one million yuan (200,000 U.S. dollars) a year for treatment of lepers.

The World Health Organization and some non-governmental health organizations from Britain and the United States have been assisting the province in its fight against leprosy since 1984. The organizations have either provided medicine, medical apparatus and instruments or have sent experts to China.

### **State Administration Boosts Control of Qigong Practitioners**

*OW2112201890 Beijing XINHUA in English  
1608 GMT 21 Dec 90*

[Text] Beijing, December 21 (XINHUA)—China is taking measures to control the spread of medical treatment using Qigong [a deep breathing method] in a bid to develop this traditional Chinese therapy in a healthy way.

According to an official of the State Administration of Traditional Chinese Medicine, many charlatans have appeared recently pretending to be Qigong practitioners while in fact swindling people and spreading superstition.

Zhang Xiangyu, a female swindler who was recently arrested, defrauded people of nearly one million yuan in this way.

Departments of public health in China are now reviewing, registering, examining and approving various Qigong hospitals, outpatient departments, clinics, and practitioners. And other organizations and personnel who treat patients with Qigong therapy. Some illegal organizations and practitioners have been banned.

The State Administration of Traditional Chinese Medicine is responsible for medical treatment with Qigong as

a governmental organization. It stipulates that personnel who treat patients with Qigong therapy must be practitioners with secondary medical school education or qualified doctors who have expertise in the relative skills.

It also stipulates that personnel who use "outside Qi" to treat patients must be examined and licensed by the local administrations of public health and traditional Chinese medicine.

The same applies to teachers of Qigong, the official said.



## INDONESIA

### Dengue Fever Kills 4 Children in Cirebon

91WE0117A Jakarta *ANGKATAN BERSENJATA*  
in Indonesian 20 Nov 90 p 9

[Text] During the last two weeks, at least 13 residents of Jadimulya Village and a resident of Pegagan Lor, Cirebon Regency, West Java, have been treated at hospitals for dengue hemorrhagic fever. Four children died before they could be treated.

Hadkias, chief of Jadimulya RW [neighborhood] 02, and Kadmia, chief of financial affairs for Jadimulya Village, said that three children from Jadimulya RW 02 died in Cirebon last Saturday [17 November]. Their names were Jaka (3), Siti S. (9), and Siti Kurniawati (8). When they died, blood was running from their noses, mouths, and pores.

The other victim, whose identity is not known, came from Pegagan Lor Village. Dr. H.A.S. Achmad, chief of the Cirebon Regency Health Service, said that the doctor who examined the child was convinced that death was caused by dengue hemorrhagic fever.

Dr. A. Susilo, chief of the Agency for Elimination of Contagious Diseases (P2M), confirmed that there has been a sharp jump in the number of dengue fever cases in Cirebon. In fact, records show that at least 32 cases have been reported to authorities.

Susilo said such a jump normally occurs when the hot season changes to the rainy season.

To prevent spread of the disease, Susilo said his office has disseminated information, destroyed breeding places of mosquitoes, and sprayed with an insecticide which kills mosquitoes that carry dengue fever.

Dr. Achmad said he suspects that the spread of dengue fever to these villages was caused by mosquitoes that initially bred only in clean, still water but now have adapted to dirty water.

"Hemorrhagic dengue fever formerly occurred only in rural areas, but many cases are now emerging in the villages, probably because of population mobility and the adapting of mosquitoes to dirty water," he stated.

Dr. Achmad called on residents of Cirebon not to panic and said that if any family member has the dengue fever symptom of a rising temperature for a 5-day period he should be immediately brought to the nearest community clinic.

Records at the Cirebon P2M Office show that there were nine dengue fever cases between January and September and that there were eight cases of dengue shock syndrome, five of which resulted in death.

## SOUTH KOREA

### Survey Shows Increase in C-Type Hepatitis Patients

SK1412013890 Seoul *THE KOREA TIMES* in English  
14 Dec 90 p 3

[Text] About 1 percent of the nation's population are likely to be infected with the C-type hepatitis which is known to be as fatal as AIDS, a professor of Seoul National University said yesterday.

Eleven of 932 healthy persons or 0.93 percent who donated blood at his university hospital were found in an anti-body test to be infected with the deadly virus, Prof. Han Kyu-sop said.

The ever-increasing transmission of the hepatitis poses grave danger to public health in a situation that health authorities remain idle without taking measures to curb the spread.

The C-type hepatitis is transmitted through blood transfusion and close bodily contacts with the virus carriers, he said.

Since its existence was made public in the United States in 1988, the C-type hepatitis is regarded as a highly dangerous liver inflammation compared with the widely known B-type hepatitis, he said.

The liver inflammation increases the possibilities of those infected to develop fatal diseases like liver cancer up to six times, he added.

Meanwhile, the Hanyang University Hospital also put three C-type hepatitis patients under special watch.

The Seoul Chungang Hospital found that 27 out of 341 patients admitted to the hospital because of liver disorders were carrying the C-type virus.

Despite the grave danger, there are no generalized tests to detect the infection in the nation and the reagent used in the tests is very expensive.

As a result, only a few general hospitals have conducted the anti-body tests after importing the reagent from foreign countries.

In advanced countries like the United States, Japan, European countries, an anti-body test to detect the C-type hepatitis is mandatory prior to blood transfusion.

Medical experts called on health authorities to make it mandatory to take a hepatitis test on blood donated for transfusion to curb the infection.

The test should be also covered by medical insurance and the reagent be domestically produced to reduce the cost, they added.

**US Wheat Found To Contain Poison***SK2012060290 Seoul CHUNGANG ILBO in Korean  
12 Dec 90 p 7*

[Text] At a time when our country has come under mounting pressure from advanced countries to open up its agricultural markets, wheat imported from the United States has been found, for the first time, to contain (deoxynibarenol) [DON], a strong poison produced by bacteria called eumycetes, according to a test. As this poison, if eaten, destroys marrow cells in the human body, it is shocking news.

Meanwhile, it was reported that barley, corn, and kaoliang grown in some regions of our country also contain a high degree of not only DON, but also (nivarenol) [NIV], a poisonous fungus similar to DON. This poses great hazards to public health.

These results have been found after a Seoul National University pharmacognosy research team led by Prof. Chang Il-mu in 1989 tested 28 samples drawn from two different species of grains, such as corn and wheat imported from South Africa and the United States, and five different species of grains grown in six regions, including Kyonggi, South Cholla, South Chungchong, North Kyongsang, and Kangwon Provinces, to see whether these grains contain any degree of contamination of (? tricoecine fungy poison). The research team also tested at total of 34 samples, including four kinds of soft drinks made of barley being produced by 4 domestic soft drink makers.

According to the test, 230 micrograms of DON were found in U.S. wheat imported last year. This is the first time ever that a poison other than the residue of pesticides or (? aplatoxin) has been found in grains imported from foreign countries.

From barley grown in the country, from Muan, South Cholla Province, Chongson, Kangwon Province, Puyo, South Chungchong Province; from corn grown in Muan; and kaoliang grown in Puyo, between 168 and 560 microgram of the DON has been extracted from each 1-kg sample. The DON was found in only five out of 32 domestic samples.

Meanwhile, the NIV was found from barley grown in Muan and Kanghwa, Kyonggi Province; from corn grown in Muan; and from kaoliang grown in Puyo, between 189 and 340 micrograms from each 1- kg sample. NIV was found in only 4 out of 32 samples.

The DON and NIV are strong poisons that are produced from (? tricoecine), a fungus known as Husarium. When these poisons are in a state of high concentration, they can cause bleeding on human skin by a mere scratch. Even in a state of low density concentration, they also can cause internal bleeding and destruction of marrow cells if they are eaten. An animal experiment on mice revealed that 5 milligram per kilogram is enough to cause death. This being the case, these poisons found in

grains means a considerable amount, even though they may be in a state of low concentration.

In the case of (? aplatoxin), a cancer-causing material, the amount of fungus-produced poison tolerated in domestic foodstuffs is below the level of 10 microgram per kilogram. However, the amount of tolerable DON and NIV have yet to be standardized.

**LAOS****Health Officer Reports on Malaria Situation***BK2010161090 Vientiane KPL in English 0928 GMT  
20 Oct 90*

[Text] The rate of malaria infection in Laos now stands at 14-15 percent, lower than that of 15 years ago at 25.60 percent.

Mr. Khamlian Phonsena, director of the Malaria and Parasitology Institute, noted that malaria had been put under control and it was not as grave as before. Since 1986 the cases infected by malaria have gone up by season especially in the rainy season.

He went on that however, up to now, the outburst of malaria in some localities was still severe. The rate of malaria infection in the northern provinces of Phong Saly, Bokeo, and Houa Phan was at 17-50 percent and in the southern Sekong and Attapeu at 51.50 percent. The high rate of infection in these provinces was caused by the inadequate resources in terms of personnel, vehicles, and equipment used in the framework of malaria control. The activities of health education were not enough. This had affected the mode of living of mountainous people which remained backward.

**Malaria Institute Director Updates Conditions***91WE0090A Vientiane PASASON in Lao 22 Oct 90 p 1*

[Text] Statistics received from the Institute for Malaria and Parasites indicate that the incidence of malaria in our country now is around 14 to 15 percent. In comparison 15 years ago the incidence was 25.6 percent.

Comrade Khamlian Phonsena, the head of the institute, reported that during the past 15 years those fighting malaria throughout our country had been able to control malaria so that it was not as serious a danger as it was when there were the epidemics of malaria. Especially since 1986 malaria in general has just increased according to the seasons. It was generally during the rainy season that malaria increased.

The head of the institute also said that nevertheless our country still had a considerable malaria incidence in some areas such as the provinces of the North: in Phong Saly Province, Bo Keo Province, and Houa Phan Province the incidence was between 17 and 50 percent. In the South in Sekong Province and Attapeu Province the incidence was around 51 to 50 percent. The reason that these provinces had such a high incidence was because of

the life style of the people in the countryside and mountain areas: it was close to nature which meant that the mosquitos and the people were close. In another area the work in hygiene of the medical cadres was still not effective. The medical cadres working to control mosquitos still did not meet the needs with regard to quantity and quality. In addition they did not have sufficient vehicles and equipment. And there was either no plan to control mosquitos or the plan was not suitable for the actual conditions.

### **Nationwide Malaria Incidence**

*91WE0090B Vientiane PASASON in Lao 24 Oct 90 p 1*

[Excerpt] [passage omitted] Malaria was controlled so that it was not as serious a danger as it was when there were epidemics of malaria. Especially since 1986 the number of people contracting malaria has decreased steadily so that in 1987 only 81,400 contracted malaria; in 1988 the figure dropped to 61,800 and in 1989 only 45,900 contracted it.

### **Animal Epidemics Spread in Siangkho District**

*BK0701080091 Vientiane Domestic Service in Lao  
0000 GMT 29 Dec 90*

[Text] During the past two months, some 400 cows and buffaloes in Siangkho District, Houa Phan Province, died of contagious diseases. Since August, 900 heads of cattle in the district succumbed to the animal epidemics which are spreading at an alarming rate. (Soptha) Canton is one of the hardest hit areas. The local people believe that if the situation is allowed to continue without assistance from the veterinary service, more cattle will certainly die.

### **Rats, Hoppers Ruin Vientiane Rice Crop**

*91WE0090C Vientiane PASASON in Lao 8 Oct 90  
pp 2, 3*

[Report by Manisai: "Vientiane Province Seeks Ways To Correct a Shortfall in Rice"]

[Excerpts] Rice production in Vientiane Province during the production season this year may be so low that it does not meet the plan because of unfavorable weather conditions and the spread of pests such as rats. In many districts of the plains and mountains these circumstances have caused serious losses to the annual rice production.

On October 1 this reporter had the opportunity to go to Vientiane Province to meet Mr. Boundet, a research cadre of the agricultural service of Vientiane Province. He said that the production conditions for both dry field and wet field rice in many areas of Vientiane Province were very unfavorable because of the spread of rats throughout almost all of nine districts in Vientiane Province. The most seriously affected area was in Phon Hong District in the area of Fakphoupha in the East. [passage omitted] In addition they spread in many villages of Keo-Oudom District, Vang Viang District,

Feuang District, Sanakham District, Kasi District, and others. They have become more widespread every year. [passage omitted] With regard to these losses Mr. Boundet said that "according to local reports, the dry field rice suffered losses because of rats which started to spread in August and now have spread to 50 percent of the dry rice fields, which amounts to more than 24,500 hectare throughout the province." The reports indicate that only 13,000 hectare of the dry rice fields will provide a real harvest amounting to 1 ton per hectare. The wet rice fields according to the plan for the year were to total 32,500 hectare throughout the province. But there were unfavorable weather conditions, as for example in Sanakham District where at the end of July and the beginning of August, which is the beginning of the transplanting period, it was very dry. And so many seedlings were lost, the fields did not have water and the people were not able to transplant 500 hectare of wet field rice. In addition in other districts such as Vang Viang District, Kasi District, Feuang District, Phon Hong District, and Thoulakhom District the transplanting of the wet field rice was not as successful as usual; there were only 29,500 hectare which were actually transplanted and achieved an average harvest of 2.5 tons per hectare. This was 3,000 hectare less than the goal. [passage omitted] Plant pests especially caterpillars, plant lice, cicadas, and various plant diseases spread and caused large losses to the wet field rice crop in many areas of Vientiane Province. Because of the losses caused to the rice crop in Vientiane Province by these plant pests, the rice crop might be lower than last year. According to estimates the crop will total only about 70,000 tons. If these estimates are true, Vientiane Province will have a shortfall of about 20,000 tons. With regard to these losses Mr. Souvannasongkham Chengsavang, a member of the provincial party and head of the Vientiane Province agricultural service, told this reporter that in order to correct this shortfall in rice the administrative committee of Vientiane Province had plans and procedures to mobilize and lead the people to expand production of various commercial crops in the dry season. [passage omitted]

## **MALAYSIA**

### **Dengue Fever Cases Increase**

*91WE0133A Kuala Lumpur BERITA HARIAN  
in Malay 27 Nov 90 p 6*

[Text] Kuala Lumpur, 26 Nov—Dengue fever is now at a disturbing level, with 3,714 cases reported throughout the country during the 11 months of this year, compared with 2,564 cases for all of last year.

Minister of Health Datuk Lee Kim Sai said that 2,339 of the dengue fever cases were on the Peninsula, compared with 1,812 cases last year. There were 160 cases in Sabah and 1,215 in Sarawak. The respective totals for Sabah and Sarawak last year were 66 and 686.

So far, 16 people have died from dengue fever throughout the country, which was the number of people who died from the disease last year.

"The Communicable Disease Control Program Unit of the ministry is monitoring the situation, and we hope that the public will cooperate by ensuring the cleanliness of residential areas and the environment in order to prevent this disease from spreading," he said.

He said this to reporters today after inaugurating a seminar entitled "Environmental Health for the 1990's," sponsored jointly by the Malaysian Association of Health Inspectors (MAHIR) and the Singapore Association of Health Inspectors.

Participants from Australia are also attending the 2-day seminar.

Datuk Lee said that although the situation is disturbing, the government does not plan to raise the maximum fine of 100 ringgit specified by the 1975 Act on the Elimination of Breeding Places for Communicable Disease Carriers.

"The Government does not want to raise the fine and thus give the impression that it is punishing the people. The important thing is cooperation, because that will be more beneficial," he said.

Datuk Lee also said that 22,281 of the 3.5 million households inspected throughout the country were found to have breeding places for the *Aedes* mosquito.

Of those 22,281 households, 7,931 were given written warnings, and 10,550 others were fined a total of 413,969 ringgit.

In addition, 143 residents were brought to court for refusal to pay fines.

He also advised residents to cooperate with enforcement authorities who are fumigating houses.

"If there is any uncertainty, members of the public may ask these officers to show their identification cards. We have received complaints that some individuals are asking payment for fumigation work," he said.

He said earlier in his remarks that health and the environment will be a serious challenge in the 1990's, because it is predicted that half of the world's population will live in big and middle-sized cities by the end of the century.

"Many countries still have problems with health services, especially related to clean water supply and organized waste disposal.

"In such countries, enforcement authorities who work to help reduce incidence of contagious diseases and guarantee supplies of clean water and food are not able at the same time to ensure environmental cleanliness in the face of rapid industrialization," he said.

## VIETNAM

### Malaria Infestation Drops in Central Province

*BK1112154690 Hanoi Domestic Service in Vietnamese  
1430 GMT 9 Dec 90*

[Text] Owing to effective preventive work, the number of malaria patients needing hospitalization in Quang Tri Province in 1990 dropped 32.6 percent from last year. The percentage of sporozoan parasite carriers decreased by nearly 80 percent compared with 1989. In March and May, the local malaria control station sent 17 malaria specialists to Huong Hoa, Gio Linh, Vinh Linh, and Trieu Phong Districts to spray DDT in nearly 5,000 homes, schools, and day-care centers. Quang Tri Province has also provided 120 million dong for the purchase of medicine needed for treatment of malaria patients and for improving grassroots health care.

### Malaria Spreading in Nghe Tinh Province

*BK2412101390 Hanoi Domestic Service in Vietnamese  
1430 GMT 23 Dec 90*

[Text] At present, malaria is spreading at a serious level in Nghe Tinh causing hundreds of fatalities. The disease is infecting many people in the plain regions, towns, and in densely populated areas which lack conditions for preventing the spread of disease such as gold field areas, aloe-wood exploiting areas, and forest product exploiting areas in the Districts of Ky Anh, Con Cuong, Que Phong, Quy Hop, Quy Chau, and Tuong Duong. In these areas, the disease spreads quicker and causes infection over a wider area.

The health service is working together with the government offices and organizations in the province to provide information on the disease and to urge the people in the area to sleep under mosquito netting, to use smoke to chase away mosquitoes, to clear away shrubbery and undergrowth, and to organize treatment centers for infected people so as to stop the disease's spread.

The health service, aided by an international body, has supplied 20,000 mosquito nets soaked with insecticide to the people in Quy Hop District.

## BULGARIA

### Minister Chernozemski Explains Health Care Reform

AU0301165291 Sofia BTA in English 1538 GMT  
3 Jan 91

[Text] Sofia, January 3 (BTA)—“Our task is, basically, to reform the health service as intended despite the harsh conditions,” Professor Ivan Chernozemski, minister of health, told a news conference today.

The ministry decided to carry out the reform in five main areas: preventive medicine, health services, economy and finance, medical education and science, and management and information. This requires structural changes in the ministry. Departments will be set up to run the listed spheres and each department will form several working groups.

“We believe it is very important to put together a team of experts and not of bureaucrats,” Professor Chernozemski said. “Therefore, we decided that the ministry staff members should practise their specialties for a couple of months a year, so as to keep abreast of practical medicine. This will give them first-hand information of the progress and the problems in the fields they are in charge of.”

The five million ecu [European Currency Units] granted under the Phare Programme will be used to buy children's health care equipment.

Professor Chernozemski announced that the World Health Organization is opening a permanent mission in Bulgaria.

### Health Ministry: Hepatitis Epidemic Abating

AU2712145690 Sofia DUMA in Bulgarian 23 Dec 90  
p 2

[Report by Kata Karagyaurova]

[Text] The Netherlands Red Cross has sent 10 liters of gammaglobulin to Bulgaria as humanitarian aid in connection with the hepatitis epidemic, and in January we will receive from them a further 40 liters. This was announced on 22 December at a news conference given by the Ministry of Public Health.

The above amount is enough to treat 25,000 people, which the ministry experts consider is quite sufficient, because the closest contacts of the patients will receive injections.

Analysis of the data on the spread of the epidemic shows a fall in the incidence of the disease since the end of November in most of the centers of population.

The ministry reported that recently cases have been cropping up more frequently in organized activities connected with treatment and the supply of medicines by foreigners, often aided by Bulgarian companies and organizations. Such activities are also being performed by persons with no medical authorization in return for payments from Bulgarian citizens, and are accompanied by advertisements in the press.

The Ministry of Public Health draws attention to the fact that this is illegal under the legislation in force at present, and that the prosecutor's office should deal with such cases. In Bulgaria at the moment, medical aid may be organized only in the health establishments of the Ministries of Health, Defense, Internal Affairs, and Transport, while the supply of medicines is the responsibility of the pharmacies' organization under the Ministry of Public Health. These activities can be practiced only by authorized persons and in the framework of the free health care service to citizens, the ministry announcement states.



**BRAZIL****Reportage of Denque Outbreak****In Ribeirao Preto**

91WE0113B Sao Paulo O ESTADO DE SAO PAULO  
in Portuguese 30 Nov 90 p 14

[Excerpts] Ribeirao Preto—In a single week, 14 cases of dengue were reported by the Sucen (Superintendency for Control of Endemic Diseases). The disease has reappeared five years after the appearance of the Aedes Aegypti mosquito in the city. Health Workers predict that the number of cases could increase by six-fold in the next few days.

According to the Secretariat of Health, the increasing number of mosquitoes can be laid to the negligence of the population. Secretary Jose Aristodemo Penotti was in the city yesterday and talked with Sucen technicians. During November, the Breteal Index (a measure of the mosquito count in water receptacles) reached 6.8 in Ribeirao Preto, alarming the health workers. [passage omitted]

In the next four weeks, the entire city should be sprayed with insecticide, in an operation coordinated by the Sucen. The State Secretariat of Health will send eight spraying machines to Ribeirao Preto. "A team of 80 people will cover the neighborhoods in a 'dragnet operation' to eliminate the mosquito foci," said Luis Gaetani, municipal secretary of health. According to Gaetani, Penotti was satisfied with the work that the Sucen is doing. "The purpose of the secretary's visit was to show the people that all the proper measures have been taken," Gaetani said.

According to the Sucen director, the "classic dengue" (Type 1) which has appeared in the city is not cause for panic. He advised people not to panic if symptoms appeared (high fever, aching muscles and lassitude), but to go to a health center immediately.

**In Sao Paulo State**

PY2012012490 Sao Paulo FOLHA DE SAO PAULO  
in Portuguese 8 Dec 90 p C 3

[Summary] Jose Aristodemo Pinotti, health secretary for Sao Paulo State, has reported 216 cases of dengue in Ribeirao Preto. He believes there may be more than 1,000 cases in that city and that the entire state could be affected.

**COSTA RICA****Malarial Zone 70 Percent of Nation**

91WE0098A San Jose LA NACION in Spanish  
17 Sep 90 p 8

[Text] The number of persons suffering from malaria has increased considerably in the national territory. One of the areas hardest hit is Limon Province, which has 70 percent of the cases.

According to the director of the Anti-Malaria Drive, Dr. Jose Luis Garces, last year 699 individuals were diagnosed as infected; whereas, up until 14 September of this year, the number of victims totaled 761.

Malaria is a disease characterized by fever, chills, sweating, and headache. It can progress toward jaundice (the person acquires a yellowish color), coagulation disorders, and renal insufficiency. These symptoms can sometimes be confused with those of a very severe influenza.

As Dr. Garces suggested, persons living in areas where the largest numbers of cases are concentrated, such as the banana plantations located in Siquirres, and having symptoms resembling those described, should visit the Health Ministry stations or Social Security. There, they may undergo a blood test free of charge to ascertain whether they are suffering from this disease.

Malaria is caused by the parasites known as Plasmodium vivax, Plasmodium malarie, and Plasmodium falciparum. It is transmitted by the anopheles mosquito, which becomes infected upon biting a sick person.

For malaria to be transmitted, an infected person, an anopheles mosquito, and a healthy person are required. Hence, this disease is controlled by treating the victims and eliminating the vector. It is estimated that 70 percent of the territory in Costa Rica is a malaria zone.

Dr. Garces remarked that, although they have attempted to control the situation in the Atlantic zone, they have not yet succeeded in breaking the transmission chain. The specialist claimed that they have even had to transfer personnel from other regions in order to treat malaria patients, their relatives, and their neighbors, and to carry out fumigation both inside and outside houses to eliminate the mosquito.

The physician noted specifically that this situation has occurred as a result of climate changes that have taken place during recent months in the Atlantic sector, fostering reproduction of the anopheles mosquito.

According to Dr. Garces, another cause that is influencing the rise in malaria cases is the reactivation of some banana plantations. The latter have absorbed foreign labor and, unfortunately, many foreigners suffer from malaria.

The official claimed that, although health stations have been set up near areas with the most victims, it is impossible to control all of them. This is because they are often day laborers performing temporary work; and, as a result, they are constantly moving from one region to another.

## CUBA

### Population To Receive Hepatitis-B Vaccination

PA0411175090 Havana PRENSA LATINA in Spanish  
1701 GMT 28 Oct 90

[Text] It was officially reported today that, beginning in 1991, Cuba's population will be vaccinated in stages and in three separate doses against Hepatitis-B.

Dr. Enrique Galban, head of the National Hepatitis Control Program, said that the gradual immunization of Cubans will begin in 1991.

To be vaccinated during the first stage will be newly-born babies from mothers infected by the virus, health workers with greater possibility of contracting the disease, and other high-risk groups.

Then the same preventive treatment will be used on the population under 20 years old, and in the final stage, people under 65 will be vaccinated.

Galban, who is also in charge of the Hepatitis-B vaccine's national evaluating commission, reiterated that the preventive drug is completely Cuban. It was developed by a team at a genetic engineering and biotechnical center—a very new research center located in a Havana neighborhood.

Cuba is the first third world country to make such a product using genetic engineering. It is the third country in the world after the United States and Belgium, the doctor said.

## PERU

### Denque Reported in Iquitos

PY2012011290 Lima EL COMERCIO in Spanish  
13 Dec 90 p A 14

[Summary] Dr. Ricardo Chavez Chacaltana, director of the program to eradicate dengue, has reported 118 cases of the disease in Iquitos.

## KUWAIT

**Disease, Health Problems Said Proliferating**

91WE0100 Jeddah ARAB NEWS in English  
11 Nov 90 p 2

[Article by Francis McKenna]

[Text] Kuwait now faces a scourge of epidemic diseases as its health system reels under the impact of barbaric thievery and atrocities committed by Iraqi occupation forces.

Dr Fawzlyah al-Sayigh, a leading Kuwaiti pediatrician, told ARAB NEWS: "The biggest disaster is happening now. The world cannot imagine what is happening."

At the headquarters of the Association for Free Kuwait in London's exclusive Mayfair, Dr Al-Sayigh, seemed close to exhaustion from her efforts to get an Iraqi government go-ahead for a Red Cross fact-finding mission to Kuwait.

Dr Al-Sayigh described the rapidly deteriorating health picture in her country. "Saddam Husayn is simply destroying our health system," she said.

The collapse of all municipal services in Kuwait City has led to dangerously escalating public health problem. "Garbage collection is a thing of the past," said Dr. Al-Sayigh. "Rubbish is burned now on vacant lots but disease-carrying vermin like rats and cockroaches are breeding faster than ever."

Compounding the misery, Kuwait's drinking water is now unsafe. "Spare parts for Kuwait City desalination plants were stolen and taken to Iraq," said the pediatrician. "Why they took those spare parts God only knows. They don't have any desalination plants in Iraq, so they don't need those spare parts for anything."

Dr Al-Sayigh stressed that bacterial and algae levels in Kuwaiti water are climbing inexorably. The specter of cholera looms large. Twenty cases had been reported already. "The message has gone out to all Kuwaitis in occupied Kuwait to boil all water before drinking," she said.

Not only have the Iraqis contaminated Kuwait's water, they are now allegedly trying to steal even that.

Recounting eyewitness accounts from relatives and friends inside occupied Kuwait, Dr Al-Sayigh said: "Saddam has started building a pipe to take the water from Kuwait to Basrah because Iraqi water there is so polluted since the war with Iran. Here is a country with two great rivers stealing the water from a country without one river. Some irony."

It's not the only irony to emerge from this tragedy. Before the 2 August invasion, Iraqis were regularly treated free in Kuwait's sophisticated health care system. "Saddam is not trying to spread propaganda that Iraqi

babies are starving and dying of malnutrition because of the U.N. sanctions against him. That's rubbish. Iraqi babies have been dying of malnutrition for the last 15 years because of Saddam's maladministration of a potentially rich country," she said.

"When you saw the Iraqis who came for treatment in Kuwait you just said, 'My God, what kind of a country do they live in?'"

Dr Al-Sayigh emphasized that all pre-invasion Iraqi patients were treated free at the Kuwaiti government's expense in a bid to foster friendly relations with Baghdad. Everybody today knows how they were rewarded.

Dr Al-Sayigh confirmed an infamous story that sent shudders through the civilized world.

"Iraqi soldiers switched off the oxygen and pulled out the plugs on incubators housing 22 newborn Kuwaiti babies at the Al-Adan Hospital in Kuwait City. Some of the babies were premature and were born during the crisis because of shock. All of them died in the incubators."

Dr Al-Sayigh continued: "The Iraqi soldiers later dumped the babies' bodies in a corner of that nursery and they took those incubators back to Iraq by truck."

How could she verify this story? "The hospital porter who buried the bodies in a schoolyard next to the hospital later escaped to Saudi Arabia and told his story to Kuwaiti government officials," she said.

Kuwait's blood banks have also been cleaned out. Kuwaiti blood plasma and factor eight, a clotting agent essential for hemophiliacs, have also been hauled off to Iraq.

Dr Al-Sayigh said that Kuwait's hospitals have been so badly looted that insufficient medical equipment remains to treat Iraqi occupation forces if a shooting war breaks out. "Only some have been left equipped for Iraqi casualties in the future. Hopefully they will have lots of casualties," she said.

She had other terrifying stories to tell. "Four Kuwaiti doctors were summarily shot dead by Iraqi troopers when they tried to work as volunteers in the Bin-Sina hospital. They only wanted to operate on a Kuwaiti child involved in a serious automobile accident. I heard this from Kuwaiti government sources in Ta'if."

Kuwaiti doctors are now effectively barred from their country's hospitals. The Iraqis now demand that all Kuwaiti doctors must sign employment contracts with the Iraqi government while recognizing the legitimacy of Iraqi rule. "Kuwaiti doctors refuse completely. None of them recognize the Iraqi annexation of Kuwait and none



of them will sign a piece of paper which would allow the Iraqis to send them to Baghdad or Basrah," she said.

"In any case, the pay is lousy, only 30 Iraqi dinars per month...and Saddam doesn't even pay that." Kuwaiti doctors and medical personnel are now forced to help fellow citizens from their homes or by undertaking risky visits. Dr Al-Sayigh was in Europe on summer vacation when Iraq invaded her native Kuwait 2 August. Her medical credentials are impeccable. She completed post-graduate training in pediatrics at London's internationally known St. Mary's Hospital in Paddington. She entered government service in two leading Kuwait City hospitals the Al-Sabah hospital and the Mubarak Al-Qadr Hospital serving Kuwait University.

## LEBANON

### Cases of 'Rabies' Reported in North

NC2812184690 Beirut Voice of Lebanon in Arabic  
1715 GMT 28 Dec 90

[Text] Dr. Walid Abu-Hasan, head of the health committee of 'Akkar's cultural council, has revealed that cases of rabies have been reported during the past month in 'Akkar areas. Eight cases have been reported in al-Qulay'at alone. An eight-year-old girl, Fatima Muhammad Sa'id, died of the disease. The official NATIONAL NEWS AGENCY has reported the spread of the disease. Dr. Abu-Hasan called for the necessary vaccines to be sent to 'Akkar. IN

**Diphtheria Epidemic in Moscow**

91WE0093D Moscow *VECHERNYAYA MOSKVA*  
in Russian 9 Oct 90 p 1

[Article under the rubric, "Around the Capital: From 1 PM to 1 PM": "The Epidemic Has Not Been Conquered"]

[Text] Although we have begun talking less about diphtheria, and the frightening warnings have disappeared from the pages of the newspapers, it still cannot be said that the epidemiological situation in the capital has improved very much. The Studinformo Agency reports that to date, according to information provided by the city's epidemiological station, 376 persons have fallen ill since the beginning of the epidemic. Of them, 128 were in the "risk group"—i.e., persons in "contact" occupations—with 16 percent having the severe form of the disease. Unfortunately, 14 cases have been fatal (including three children). At present, 143,000 persons have been immunized. Immunizations are to be given to 300,000-400,000 persons by 1 November.

Moscow Records 561 Diphtheria Cases in 11 Months  
*PM1912091590 Moscow SOVETSKAYA ROSSIYA in Russian 14 Dec 90 Second Edition p 4*

[N. Lukyanova report under the rubric "Your Question": "Avoiding an Epidemic"; first paragraph is reader's question]

[Text] "Your newspaper has already written about the growth of diphtheria in Moscow. Has the epidemic been halted? Honestly speaking, we are afraid to take our child to the kindergarten. Tikhonov family, Moscow."

We asked G. Lazikova, specialist at the USSR Health Ministry's Preventive Immunization Department, to answer the reader.

"It is premature to speak of an epidemic, although an 'outbreak' of diphtheria really has been observed in Moscow this year. Whereas in previous years, on average, no more than 1,000 people in the country have fallen ill, and then primarily in Central Asian regions, 561 cases of diphtheria have already been registered in the capital during the first 11 months of this year. This is, of course, a disaster for a city with a population of many millions, where huge masses of people circulate day after day, inevitably 'exchanging' infection. Mass vaccination against diphtheria was carried out in our country for the first time in 1959. The terrible disease was 'blocked' in the space of a few years. After that, for 30 years, it was mainly children who were vaccinated, while adults saw no need for it. In vain. Today we have encountered precisely 'adult' diphtheria, which takes a grave course and produces serious complications. Only 61 children have fallen ill, and in many of them the illness has taken a mild form—a vaccination carried out even once acts as 'insurance.'"

So, the chief guarantee is vaccination. Whether or not there will be a diphtheria epidemic in Moscow depends on us alone.

**Cholera in Moscow**

91WE0093B Moscow *TRUD* in Russian 1 Nov 90 p 1

[Article by V. Ilin: "Cholera in Moscow: Round Two"; first paragraph is source introduction]

[Text] For the second time in two weeks, an individual with cholera arrived in the capital from abroad. Last time, the dangerous "guest" was brought in from India; this time, from Iraq.

On 28 October, Soviet citizen B. R-v flew in from Baghdad on Flight 514 and went directly to the medical station at Sheremetyevo Airport No 2. From there, he was transferred to Botkinskaya Hospital with a diagnosis of food poisoning. Tests yesterday, however, revealed cholera vibrio. The patient was immediately transferred to the infectious hospital on Sokolinaya Hill, and the department of especially dangerous infections of the city epidemiological station once again found itself with a tough job—identifying the patient's contacts in the airplane, the airport, and Botkinskaya Hospital, and placing dozens of people under observation.

Aren't epidemic specialists having to be alerted a little too often? Unfortunately, there's nothing anybody can do about it—the range of contacts of our people with foreigners is widening swiftly. And the only thing that can be done in this regard is to reinforce and improve the epidemiological service, whose job is clear—to be our biological shield.

**Plague in Aral Region**

91WE0093A Alma-Ata *KAZAKHSTANSKAYA PRAVDA* in Russian 18 Sep 90 p 1

[Article by KazTAG correspondent K. Imanberdiyev]

[Text] **Aralsk (Kzyl-Orda Oblast), 17 September—Yet another misfortune has befallen this city of ecological disaster—the plague.**

T. Orynbasarov, a crane operator at a freight-handling equipment plant, was taken to the rayon hospital with a diagnosis of upper respiratory disease. The patient's state soon worsened drastically, and on 13 September he died. On that same day Zh. Zhansugurov and T. Kadyrkulov were admitted to the hospital with high temperatures. It turned out that they and Orynbasarov had slaughtered a camel. Bacteriological tests were positive for the plague microbe.

Emergency epidemic-control commissions were quickly created in the Aralsk Rayon and oblast. A quarantine prohibited anyone's departure from Aralsk. All persons

who had been in contact with Orynbasarov, Zhansugurov and Kadyrkulov were identified and isolated (except for one). A temporary hospital and other medical facilities were also opened.

The situation in Aralsk remains complex. Progress in fighting the epidemic is examined daily at a meeting of the oblast epidemic control commission, which is headed by oblast executive committee first deputy chairman A. K. Ibrayev.

### **Preliminary Diagnosis of Plague in Moscow**

*91WE0093C Moscow TRUD in Russian 14 Nov 90 p 1*

[Article by A. Trushin: "Preliminary Diagnosis—The Plague"; first paragraph is source introduction]

[Text] Concern over several cholera cases (TRUD, 23 October 1990) had barely died down in the capital when the editor's office received another alarming report.

An extremely disheveled citizen was delivered by ambulance to City Hospital No. 1 directly from Kazanskiy Station at 1640 hours on 11 November. Because he had no documents with him, the doctors had to take him at his word. The vagrant gave his name as G. Kudryashev.

At 1930 hours on 12 November, Kudryashev passed away in the hospital's resuscitation ward. Plague was the preliminary diagnosis. We were told by the city epidemiological station that special epidemic-control measures are being conducted in Kazanskiy Station by a team from the epidemiological station of the Moscow Railroad, and people who had come in contact with the deceased are being identified.

Gennadiy Onishchenko, deputy chief of the Main Epidemiological Administration of the USSR Ministry of Health, said that the doctors had not yet come to a final conclusion concerning the patient's cause of death. Yesterday, an autopsy was done and tests were conducted. The management of City Hospital No. 1 assured us that Kudryashev had not come in contact with any other patients in the reception room or the resuscitation ward. Other details will become known in two or three days. We will report them to our readers.

### **Ministry of Health Collegium Discusses Plague Prevention**

*PM1012131990 Moscow IZVESTIYA in Russian  
4 Dec 90 Union Edition p 6*

[S. Tutorskaya report: "You Could Catch the Plague. The Infection is Real, But Is the Injection?"]

[Text] The USSR Health Ministry has discussed measures needed to forecast and prevent the danger of infection.

Epidemiologists had long intended to raise the question of the plague at a USSR Health Ministry Collegium sitting. The fact of the matter is that three people in our

country have died of the plague since the beginning of the year, and a total of five people have contracted the disease this year.

There is a cure for the plague! So why have three people died of the plague in Kazakhstan? Because physicians have forgotten how to recognize the symptoms of the disease. They treated the effects but not the cause: The correct diagnosis was made too late in every case.

Just two years ago, information on the plague was classified. It was as if the problem did not exist. That is why special courses at institutes and articles in scientific journals have disappeared. But we all live on the same planet, and many terrible diseases have not yet disappeared. The recent introduction of cholera to our country from India and Iraq is an alarming reminder of this.

Infection with the plague (in its pulmonary form it is transmitted through coughing and the spray of saliva) and its serious progression are such that the disease has long been incorporated into popular proverbs and sayings. It is no accident that AIDS is called the plague of the 20th century. The discussion at the USSR Health Ministry Collegium sitting was urgently needed.

What exactly do we have at our disposal? A network of antiplague centers (29 in all), approximately 190 units working to prevent infection, and six research institutes headed by the Saratov Institute. We have had a system for monitoring and forecasting the situation since 1897. Almost 100 years. But, at present, half of all antiplague centers work in intolerable conditions and are poorly equipped.

The outlook for the future is not bright: Our centers of infection, where the disease is mainly spread by small rodents and fleas, are also troubled areas. They are: Central Asia, several oblasts in Kazakhstan, Tuva, the Caspian region, the North Caucasus, and the Transcaucasus. When the antiplague service finds animals carrying the plague bacillus, all rodents and fleas are destroyed. There is as yet no other way of preventing an epidemic in the world.

Even plowing the land in areas where the plague naturally occurs increases the danger of humans and animals becoming infected, and the same thing happens with mineral extraction.

So why not evacuate everyone from these risk areas, some readers will ask. Apart from the fact that this plan is unrealistic—many regions where infection is smoldering are densely populated, and Moscow, for example, is in an area of tick-borne encephalitis—the infection itself will nevertheless remain, which means that the same work will have to be done by specialists from the antiplague service.

This front—which, until recently, was unseen by the outside world—is being held with difficulty. We need "weapons": Modern laboratory equipment, like that

seen by our specialists in India, for example. We need direct working links with units of military physicians and infectious diseases specialists. The collegium sitting also said that we need to galvanize the work of research institutes, bring their research topics right out "into the open," and print articles for physicians in specialized journals and a list of do's and don't's for the population. There must be stricter hygiene measures.

An antiplague service must be maintained at union level: There must be unified methods, a unified approach, and accurate information.

The fact that local authorities in Dagestan, Astrakhan, Guryev, and the Kara-Kalpak Autonomous Soviet Socialist Republic do not devote proper attention to the state of their antiplague centers, despite the adverse epidemic forecast in these regions, is completely mystifying. If properly equipped, the centers to which I am referring could (and should!) prevent not only the plague from spreading, but also other serious diseases from being transmitted to humans by animals.

None of this can be put off until tomorrow. A plague epidemic did not break out after the Armenian earthquake only thanks to the joint efforts by specialists from Saratov's Mikrob Institute, Armenian infectious diseases specialists, and their colleagues from Volgograd, Rostov, and Stavropol.

... As I left the collegium sitting, I thought of something I had seen recently: Some young boys in Moscow banging sticks hard against a garbage container—and rats running out. Not a very pretty picture, but one which I had seen long ago, after the war, and had not expected to see again....

### Consequences of Alleged 1979 Sverdlovsk Anthrax Outbreak Explored

91WN0169A Minsk ZNAMYA YUNOSTI in Russian  
24, 25 Oct 90

[Article in two installments by Sergey Parfenov: "The Secret of the 'Sarcophagus'"; reprinted from the magazine RODINA No 5, 1990]

[Text] There are several cemeteries in the city. But hanging like a sword over one of them, Vostochnyy, is a national curse...

No, this place is still filled with visitors, especially on parents' day. People wander through the lanes and paths. They cry, they are silent, they remember the deceased. Just as they do everywhere else.

But nobody is hurrying to Sector No. 15. Here, as a rule, there are no people, and a somber silence prevails. There are dozens of graves. Many have been forgotten and neglected, and they are overgrown with weeds. Nothing is taken out of here (old wreaths and dry and mown grass, for example, are burned) and any digging or

cultivation of the ground here is strictly forbidden. The sector is inspected periodically by workers of the SES [sanitary-epidemiological station]. The high officials of Sverdlovsk and the oblast know about the "sarcophagus"; they say that on the city map this corner of the cemetery is marked with a red cross.

What secret is kept in Sector No. 15 of the Vostochnyy Cemetery, what is it that evokes fear to this very day?

### The Official Version

Early in the morning on 4 April 1979 in Chkalovskiy Rayon in Sverdlovsk (not far from the 19th military compound where the laboratories of the Scientific Research Institute of Vaccines of the USSR Ministry of Defense is located), some incomprehensible things started to happen. The telephones in the first aid service would not stop ringing: All of a sudden, for no apparent reason, people were becoming disabled and weak, their temperatures shot up to above 40 [degrees centigrade], they had bouts of coughing and vomiting... The patients were taken to city hospital No. 24—some of them from home and some of them right off the street. Soon there were no empty beds there (the only treatment facility could take only 100 people) and they began to send the afflicted (with what nobody knew yet) to the neighboring hospital No. 20...

Margarita Ivanovna Ilenko, the head physician of city hospital No. 24, says:

"Ten years ago we actually did not have a hospital; we lived and worked in crowded conditions. Such a flood of patients was quite unexpected and we sent some of them to the 'Twentieth.' And all of a sudden the head physician, Yakov Iosifovich Klipnitsker, called me from there:

"Listen, Ilenko, we had two of "yours" die on us..."

"I was taken aback:

"The diagnosis?"

"Seemed to be pneumonia..."

"After a short period of time the phone rang again. It was Klipnitsker:

"Margarita Ivanovna, I am in a state of panic: Three more have died!"

"From what?"

"Toxic pneumonia..."

"My word of honor, I broke into a sweat. For if the disease was not prolonged, and if during that time there were no complications, no "slip-ups," I am sure that a trained medic is well aware of the fact that pneumonia is practically never fatal. And here we had an almost instantaneous, extremely severe form! People were dying from pulmonary hemorrhage.

"And then it dawned on me: God, this was some kind of infection!...

"But what kind?

Roza Khaziyeвна Gaziyeва, the head of admissions of hospital No. 24, recalls:

"As senior therapist, I was on duty that terrible night. They kept bringing people in. There was nowhere to put them; we had to put them in the corridors. Some of them who felt better after first aid tried to go home... They were later found on the streets—the people had lost consciousness. And there was a problem in the building: A man had died. A woman was critical. I brought her back to life with mouth-to-mouth resuscitation. To no avail. During the night we had four people die. I could hardly wait until morning. I was frightened...

It was in the air: infection, infection, infection. Gaziyeва could barely stand on her feet: She had three small children and she herself was still young—she wanted to live. But this feeling came a little later, and for now her head was splitting into pieces: What was happening, why were people dying, how could they stop it? By the time M.I. Ilenko came into the reception room, Gaziyeва was almost in tears. Her rounds were simply a nightmare. In the wards the dead and living alternated...

M.I. Ilenko:

"I understood why the personnel were in shock: I looked at a patient—he was as good as dead. But even two or three minutes before he died he looked at the doctor calmly, as though nothing had happened, although all the patient's body (from somewhere on his back) was covered with the typical spots of a corpse. A moment later there was blood in his throat and he was gone..."

Two days later—finally!—they woke up "upstairs." Diagnosis: anthrax! The situation had changed abruptly. All medical services in the city were put to work. Organs of the sanitary-epidemiological service, veterinary services, fire departments, military services, enterprises and organizations of Sverdlovsk. The emergency became the subject of large-scale investigations in the oblast and upper echelons of power. Highly placed leaders of the USSR Ministry of Health, including the country's chief sanitary physician P.N. Burgasov, came to the Urals.

The medical workers of hospitals No. 20 and No. 24 were given an order: to move all patients infected with anthrax to city clinical hospital No. 40, to the infectious diseases facility. The collectives were to begin vaccinating the population and decontaminating the area of Chkalovskiy Rayon.

The people were moved. All the patients ended up under the constant scrutiny of medical personnel, the best specialists in the oblast. But...they continued to die.

In 1979 Galina Alekseyevna Lyashchenko was working as chief of the office for services (funeral services) for production combine No. 1:

"What was especially etched on my memory? The situation itself surrounding the outbreak of anthrax. People were nervous and did not understand things very well. There was fear, innuendoes, panic... And, of course, immense sorrow, the tragedies of families. I alone had to bury no less than 50 deceased. They were mainly middle-aged men..."

In spite of the minimal amount of information, rumors about the emergency spread rapidly through Sverdlovsk.

Witnesses to these events remember that April well, the atmosphere of wild fear among the population, the panic, the many alarming rumors (right down to the point of saying that IT "broke out" in the 19th military compound and dragged the poison through Chkalovskiy Rayon). People tried not to eat meat, sausage, or frankfurters, they avoided going out of the house, they locked up the windows and doors, and they limited their contacts with one another. The local newspapers published explanatory articles with recommendations on how to protect oneself from anthrax.

But many people did not believe the official version. And with some justification. Thus when patients would come to city hospital No. 40 they were asked if they had anything to do with the 19th military compound. A limited group of Sverdlovsk residents more or less that behind the strong army fence in a secret scientific subdivision they were doing work related to the vaccine. Is this not where the mysterious disease came from?

According to the figures of the military scientists, "the cattle belonging to the citizen Perevalov from the village of Averinskiy in Sysertskiy Rayon fell ill with anthrax and mass death of animals began here at the end of March." This, they said, was the source of the tragedy.

But here is the hitch: From the statistics that were given for the spread of anthrax—159 outbreaks—it quite definitely follows that this "plague" has afflicted livestock and passed humans by. Why was it that in the spring of 1979 it hit us so selectively and fiercely? There is no answer.

Incidentally, here is what the head state veterinary inspector for Sverdlovsk Oblast, Valentin Petrovich Yaroslavl'tsev, has to say (he has been working in this position for many years and is a very qualified specialist):

"When we found out about the emergency and the diagnosis that had been given, we immediately put our people to work, conducted careful research, and did hundreds of analyses of the soil, feeds, and air. So I shall be brief: We did not find any source of the disease or cause of the outbreak of anthrax in our service..."

#### FALSIFICATION?

Here is a fact that draws our attention. In practically all of the documents, articles, and reference works (including in the statements from the military) pertaining to the



sad events of 1979 in Sverdlovsk, there are always references, quotations, and figures from the article of Professors I.S. Bezdenezhnykh and V.N. Nikiforov, "An Epidemiological Analysis of Anthrax in Sverdlovsk," printed in No. 5 of *ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII* for 1980. And this practically the main argument of the proponents of the official version of the outbreak.

But let us reread this article.

"The sporadic cases of anthrax in humans in one of the rayons of Sverdlovsk were preceded by an outbreak of anthrax among agricultural animals on certain farms... The animals were probably infected through feeds.

"In March-April there was a marked increase in the slaughter of cattle on certain farms and the meat was sold on the outskirts of the city through private business. Moreover, one cannot rule out the possibility of the sale by the private sector of meat from animals that had to be slaughtered..."

This requires a brief commentary.

In the first place, for such serious scientists who are drawing far-reaching conclusions (the infection of humans with anthrax occurred through the meat of domestic cattle), arguments like "probably" and "it cannot be ruled out" are hardly acceptable.

In the second place, one would have to be completely ignorant of the rural way of life and the psychology of the land-owning peasant to assert that in March-April he could decide to cruelly kill all of his domestic livestock. Never! In the country livestock are slaughtered in the autumn, when the first really cold weather comes, and then in the middle of the winter, but always keeping in mind that the herd must reproduce itself and there can be no losses.

We quote further:

"The distribution of the victims according to the dates of their illness, taking into account the duration of the incubation period, made it possible to rule out the possibility of infection through meat which was centrally provided for the public food supply. If that had happened one could expect outbreaks of the disease.

"From meat taken for examination from two families in where there were victims we isolated the pathogenic organism for anthrax. In both cases the meat was bought from private individuals at unofficial marks and the strains of the pathogenic organism of anthrax isolated from the meat were the same as the strains isolated from the afflicted humans..."

And what does this prove? In the opinion of I.S. Bezdenezhnykh and V.N. Nikiforov, it proves that the infected meat was the cause of the infection of the humans.

Yuriy Mikhaylovich Gusev, the director of the Sverdlovsk plant for ceramic items:

"I know that there is this version: The workers suffered because of meat bought from private businessmen—but it was really purchased by an enterprise in an organized way. This is not so. In the eve of the holiday we actually did acquire some meat from the Kadnikovskiy sovkhos in Sysertskiy Rayon. We have long-standing and good relations with this farm and the collective helps the sovkhos, especially in harvesting the crop. But I can tell you with complete certainty that the meat was inspected by the veterinary service and it had a stamp, that is, their conclusion was positive.

"We must look for the source of the disease somewhere else. And the cause as well. Because at that time the plant lost more than two-tenths of its workers. And this was in peacetime..."

Specialists go on to write:

"...Individual cases of anthrax among humans have been registered, and there were skin and intestinal forms of the infection. The anthrax-like nature of the illness was confirmed by the results of laboratory examinations of the humans and the animals."

What do they mean by "individual cases"? Seven-tenths of our deaths (according to incomplete data, the Vostochnaya cemetery is not the only place where they are buried)—what about that?

And why do the authors name only two forms of infection. Anthrax in humans is manifested in three main clinical forms: dermal, pulmonary, and intestinal. The intestinal form appears as a result of eating the meat of ill animals. The dermal form the causative agent enters at a point where the skin has been injured, mainly on exposed parts of the body (face, neck, fingers, forearms). We admit that both of them "occurred" in the spring of 1979.

But why did Bezdenezhnykh and Nikiforov not even mention the pulmonary form of the infection? Perhaps there were no cases of this? There were, and we are convinced of this by the evidence from medical workers of hospitals No. 20 and No. 24.

The problem is apparently that with the pulmonary form the infection is aerogenic when the patient is working with materials infected with spores of the anthrax bacilli. The disease progresses following the pattern of serious bronchial pneumonia. Is this not the riddle of the strange tragedy of 1979? In order to fall ill this way, to put it crudely, you have to inhale something, that is, microbes that are in the air in "suspended" form!

From a conversation with Faina Afanasyevna Abramova (former docent of the faculty of pathological anatomy of the Sverdlovsk Medical Institute):

"In 1979 I was already on a pension but they asked me to come and work in hospital No. 40 as a pathological anatomist. So I remember well the sad events in April.

"Once on Saturday—it was the end of the month—a strong young man was sent to us and on Monday he had already died. They asked me to examine him: They said it was a very complicated and incomprehensible disease...

"All right. We did an autopsy. One was struck by the infection of the lymph nodes and the lungs. But I also paid attention to the hemorrhagic inflammation of the encephali and we discovered a so-called "cardinal's cap." What is that? I told them it was similar to anthrax. But both the clinicians and the infectious disease experts who were present had their doubts: Enough about this anthrax, we finished with that long ago...

"I asked: Is everything clean in the city, are there no infections anywhere? And then someone admitted: Instructions had been given to prepare a ward, they were waiting for patients, so there was something.

"We decided to conduct a bacteriological investigation, called the department for especially dangerous infections of the oblast sanitary-epidemiological station, and sent the body there. The microscopic sections were filled with anthrax microbes! And things took off...

"It turned out that in hospital No. 20 there had been an outbreak and several deaths from pulmonary infections. But the diagnosis was different: pneumonia. They sent an appeal to the chief of the oblast public health department N.S. Kikiforov. And the pathological anatomists and court medical experts were all told that this was indeed anthrax. We believed this and started our hellish work.

"All the people who were infected were taken to hospital No. 40. With each suspicious case in other regions of the city we would go to the location immediately. To be safe, during the first days the medical personnel took antibiotics. We had to handle a very large number of corpses, I know for sure there were 42 bodies...

"What happened later, after the outbreak had been conquered? Something that was unique in all respects. In the highest medical circles (with the knowledge of P.N. Burgasov) they decided "while the case was still hot" to prepare and publish a monograph (and in Sverdlovsk). We planned a candidate's dissertation about this case. Working on it with me was Lev Moiseyevich Grinberg, who was working at that time as a pathological anatomist in the tuberculosis hospital.

"We gathered the materials and went to Moscow, worked another two weeks on it there, and then wrote it. We left it there, including 80 or 90 color slides. The morphological picture was very rich. But we never heard anything more about the monograph (dissertation)! Twice I was invited to give papers about the emergency and anthrax—in Moscow (at the Botkin Hospital) and in Sverdlovsk at the oblast seminar for pathological anatomists. But both times at the last minute I heard: The arrangements are canceled, anthrax is not included among the especially dangerous infections...

"I have left as a 'memento' of those days an engraved watch—a gift from the Sverdlovsk oblispolkom [oblast executive committee] and the conviction that the infection of the humans in April-May 1979 was mainly aerogenic."

#### A Virus From the Department

Comments from Margarita Ivanovna Ilenko:

"No, that was not anthrax. I am a professional, an old and experienced medic. The patients I saw had pulmonary and respiratory infections. Plus there was the amazing speed with which the disease took its course. What were we dealing with? It seems to me that it was some microbe grown under specific conditions. And I am very sorry that the truth about it was suppressed from the very beginning. It would have been possible to avoid many mistakes, incorrect actions, and fear..."

The head physician of the Scientific Research Institute for Protection Maternity and Childhood, Tamara Fedorovna Kireyeva:

"We received lists of people in the rayon from which we are categorically forbidden to admit obstetrics patients. They took from us to hospital No. 40 a nurse-anesthesiologists, and through medical channels we learned that patients from the 'zone' went there—mainly with pulmonary infections..."

What were these lists? There was a surprising pattern: An especially large number of the names were of people brought in from Sverdlovskaya (16 people), Eskadronnaya, Lyapustina, Poldnevaya, Voyennaya, And agromicheskaya streets (we are speaking about hospital No. 24)... Why? If you look at a map of the city it is not difficult to note: all these geographical points are...to the south of the 19th military compound! Of the enterprises of the rayon, workers of the ceramic items plant suffered especially.

The people recall: The wind during the first days of April 1979 blew mainly from the north to the south...

On 17 February of that year there was what was perhaps an unprecedented event in Sverdlovsk. The collective of the sector for military epidemiology (SVE)—one of the structural subdivisions of the Scientific Research Institute of Microbiology of the USSR Ministry of Defense, created in 1986 on the basis of the scientific research institute of vaccines of that same department—opened the doors of their laboratory to civilians. Invited to visit the military scientists of the 19th compound were USSR People's Deputy V.I. Shmotyev, the first secretary of the Sverdlovsk party city committee V.D. Kadochnikov, representatives of the rayon authorities, scientists of the Uralsk Branch of the USSR Academy of Sciences, ecologists, and journalists. There was an inspection of the heretofore classified facility and a press conference. And, of course, the conversation touched upon the events of 1979.

For example, this question was asked:

"What is the sector for military epidemiology and what functions does it perform today?"

"Our sector is a scientific research institution of the USSR Ministry of Defense," answered the chief of the SVE, Candidate of Technical Sciences Colonel A.T. Kharechko. "The scientific subject matter envisions the solutions to a broad complex of problems in the area of antibacteriological protection. This is the development of means and methods of disinfection of the locality, military equipment, arms, and various military property, means of individual and collective protection of humans from biological aerosols, and also means of rapid discovery of harmful substances in the environment. We also conduct research and study of the mechanism of biological damage to military equipment, that is, the influence of various natural micro-organisms on the constituent materials of this equipment for in nature there are also microbes that are compatible with technology which destroy metal and plastics..."

"How does one evaluate the sector's activity under the conditions of the recently changed military and political situation in the world? Is this work not superfluous?"

"No," objected Anatoliy Trofimovich. "Research in this area is being conducted on a broad scale in Western countries, although, true, not in private laboratories but only in industrial ones. And if you look at the regulations of the armed forces of these countries, as before they envision measures for antibacteriological protection, so it would be unjustifiable carelessness for us to halt this work unilaterally..."

"Residents of Sverdlovsk still link this outbreak of anthrax in the spring of 1979 to the activity of the institution located on the territory of the 19th military compound. What can you say about this?"

"That opinion is profoundly mistaken. The rumors that made their way around the city in the spring of 1979 about some outbreak that was supposed to have occurred on the territory of our institution and the discharge of the causative agent of anthrax into the environment had no real grounds. Mainly because we never had anything to do with the outbreaks. In our laboratories there simply were no substances, materials, or processes which could have led to the outbreak. I think this absurd version became widespread because the majority of people are more inclined to believe in certain fantastic things than in real and natural explanations. The very unusual and tragic nature of the situation apparently demanded equally unusual and sensational causes. The regimen of secrecy and the notorious departmental interests also played no small role here.

"Sad as it may be, the fact that this subject is being raised again now can most likely be explained by the existence of certain groups and individuals who are trying to gain

recognition and popularity by awakening a negative attitude toward the army in the community. This is a destructive policy..."

And so the specialists of the sector of military epidemiology assert: The discharge of anthrax causative agents from the territory of the 19th military compound never happened at all, nor was there any kind of outbreak.

Yes, there were rumors about this among the population. But the discharge of poison could occur "on the quiet"—through the ventilation system, for example. Before 1986 the sector and prior to that the scientific research institute engaged in the development of technology for the production of vaccines for protecting the country's troops and population from a number of dangerous infections. But where there is a vaccine there are also strains of virulent cultures of causative agents which were used in the laboratories. Including anthrax.

This is not the only disturbing thing. During the first days of the outbreak medical workers paid attention: Most of the people who suffered from it were men. At the news conference, incidentally, workers of the SVE gave these statistics: During the emergency 96 people fell ill. Of these 25 percent were women and 75 percent were men. One child was also afflicted.

But what does all this tell us? First of all, it tells us about the strange selectivity of the disease. It "mowed down" the adult, most able-bodied population, and among men—in the age group from 31 to 40 years of age (mainly). How does one explain all this? Only by the fact that, say, on that fateful day uninspected meat was brought in to sell at the ceramics plant? Or perhaps it was a virus that broke out randomly or was it programmed?

Look. Considerable forces were dispatched to clean up after the outbreak. This was already discussed briefly above. But in addition they mobilized (there is probably no other way to put it) to the region of Vtorchermet automotive transportation enterprises, the city planning service, students of the Sverdlovsk Medical Institute, and so forth and so on. In the region of the 19th military compound people in gray-green protective suits took soil samples. In some places, particularly in the region of the former collective gardens behind the ceramics plant they removed the upper soil layer. Certain streets were covered with a new layer of asphalt. Firemen washed the roofs, sidewalks, large buildings, and houses...

M.I. Ilenko:

"When they began to pour a special solution everywhere (which was intended to kill the rest of the anthrax agents), the situation, in my opinion, became worse..."

What was the matter? Medical experts assume that by the time of the mass work for disinfecting the territory of the rayon, the aerosol (if you accept the "leakage" version) or the so-called "dust" had already settled and been buried. And now it has been raised up into the air again. The rest is understandable. Unsuspecting people



swallowed the fatal "dust" and it infected the mucous membrane of the upper respiratory tracts and the lungs. Bronchial pneumonia was the lethal outcome..."

#### **Ask the Dead the Price of Life**

One question will not leave me in peace: Why did the military suddenly become so communicative? Of course, today one has to deal with public opinion. USSR People's Deputy G.E. Burbulis showed an interest in the events of 10 years ago in Sverdlovsk. But the main thing is that in 1989 the sector changed over to economic accountability. It could deliver nutrient medium to laboratories on a contractual basis, conduct the most complicated chemical analyses for medical experts, sterilize instruments and materials, engage in subject research, conduct bacteriological certification of the location, and conduct ecological observations. After all the SVE has equipment civilian laboratories could never dream of.

But this requires partners, one must have an irreproachable business reputation, and in all matters one must profess not only advantage and commercial gain but also honesty and confidence. This is probably one of the reasons why they held the news conference in the 19th military compound in February.

But neither before nor after it was there any confidence that the development of events in the spring of 1979 proceeded precisely the way the official version claims. For example, the military clearly hint that the emergency was on the conscience of the service of the sanitary-epidemiological station and it was because of their thoughtlessness and carelessness that the anthrax spread.

Well in the spring of 1979 in the outskirts of Sverdlovsk, in Sysertskiy Rayon, cases of infection of domestic cattle with anthrax were registered. But it is equally probable that this outbreak coincided in time with the "backfire" of the Scientific Research Institute of Vaccines and this was subsequently used by the military department for its own alibi.

The author by no means claims that his judgments are final. And it would be premature and irresponsible to say the least to draw hasty and categorical conclusions. But the discussion of the tragic story of the "anthrax" in Sverdlovsk had to occur one way or another. And for now the Soviet citizen has no certainty that the information given to him from official sources and the secret departments is objective and reliable. Examples? The fate of the Aral, Chernobyl, the chain of bloody, terribly neglected conflicts in the Transcaucasus, the bloody April in Tbilisi. And where is the guarantee that we are not sitting on another bomb today.

## GERMANY

**Livestock Disease Transmitted Between FRG, GDR Regions**

91WE0112A Magdeburg VOLKSSTIMME in German  
13 Nov 90 p 6

[Article by Dr. Christian Kretzschmar: "Some Highly-Transmissible Livestock Epidemics Were Eradicated in the Former GDR"]

[Text] Livestock epidemics are back with us. The media tell us however mostly about what is getting into the old federal laender and Western Europe from what used to be GDR territory. That happens to be almost exclusively cattle leukosis the eradication of which has been pursued energetically for many years, although it will take another two to three years before the job is done. Sensation-hungry, if not perhaps even a little bit malignant, journalists have graded it as "highly aggressive and lethal." It is intimated to the lay reader that "if that thing" comes over to us, then our cattle will die by the thousands in a very short time. In reality, a small percentage, years after an infection contracted mostly at an early age, will die of a malignant tumor disease of the white blood cell system, so-called leukosis, which, by the way, cannot be communicated to man.

The spread of infections from GDR territory would have been absolutely avoidable because all cattle herds are known and have been classified according to their state of infection. Cattle dealers and partly also farmers who ignored provisions contained in livestock epidemic legislation bear the brunt of the responsibility and this is also to a minor extent due to government veterinarians who are rather quick and easy when it comes to making out health certificates.

**Drastic Suckling Pig Losses**

But what about the transmission of livestock epidemics in the other direction, that is, from West to East? For the sake of fairness, one must therefore first of all mention the fact that, in the GDR, some extremely serious animal epidemics, such as Aujeszky's disease, classical hog cholera, transmissible gastroenteritis, and hog leptospirosis, were actually wiped out; these diseases are partly still widespread in the old FRG and in the other countries of the EC, or they keep cropping up again and again to a limited extent. The most important among them is Aujeszky's disease. Wherever it strikes, it causes heavy suckling pig losses, which amount to dramatic figures on big breeding farms, as a result of febrile sicknesses connected with encephalitis.

**Disease Wiped Out**

This infection was wiped out in the territory of the GDR in 1985 as a result of efficient and protracted recovery programs. All hog raising establishments were subjected to blood serum testing each year. After that, there were five new outbreaks until 1989, exclusively in the area

immediately adjoining the border with the FRG, where far more than 1,000 outbreaks have been recorded annually since 1982.

The unreported figure is at least as big because the infection is not recognized on every hog farm. The number of new discoveries has been declining only since 1988 because clinical disease outbreaks were suppressed to a great extent by means of inoculations. But animals which somehow were infected once with the so-called field virus, a wild strain of the virus, harbor it for the rest of their lives and can release it again anytime.

**Field Virus Introduced from Outside**

In the meantime, it has been proved in at least four districts, including some far in the interior of the country, that the field virus was introduced from the outside. In this situation, every agricultural enterprise should therefore demand certificates on the complete health of the original inventories before purchasing any hogs from the territory of the old FRG and from all other foreign countries; they should not be content with verbal assurances. Consideration must also be given to transporting hogs from contaminated herds separately. Newly bought animals should be quarantined in the farm operator's own interest. The hog farm operator who negligently spreads epidemics can hardly expect any animal epidemic compensation.

**Blood Serum Tests Advisable**

It is also possible, without any difficulty, to get the veterinary investigation and livestock health offices (until now, bezirk institutes for veterinary matters) to perform blood serum followup checks. In the process, it is also possible to determine whether an animal harbors the field virus or whether it was immunized only with a special vaccine that was licensed exclusively in the territory of the EC.

## IRELAND

**Statistics Show Increase in Infectious Diseases**

91WE0140 Dublin IRISH INDEPENDENT in English  
13 Nov 90 p 9

[Article by Bairbre Power]

[Text] A sharp increase in the incidence of a number of major infectious diseases—including Hepatitis A and mumps—has been recorded by the Department of Health.

A new set of statistics shows the reported cases of mumps almost trebled last year to 709.

However the statistics increase is being linked to the fact that mumps became a notifiable disease and GPs must now inform the Department of each case. And in a major MMR campaign it is urging parents to vaccinate against mumps, measles and rubella.

Meanwhile the incidence of viral hepatitis type A more than doubled last year, with 564 cases. Reported cases of whooping cough also increased sharply—2,217 cases, compared to 1,170 in 1988.

The statistics show measles rose to 1,248 cases, compared with 936 in 1988. But the incidence of acute viral meningitis halved, from 101 cases in 1988 to 52 last year.

Reporting of rubella also fell sharply, 440 compared with 1,156 in 1988.

Dr. Eamonn O'Connor, medical officer of Cherry Orchard Hospital, Dublin says the incidence of active type A hepatitis fluctuates and is more common among youngsters. It is usually picked up by children in their younger years and most people have got it by the time they are adults.

Hepatitis type B is the more serious condition and carries a higher mortality rate. Medical personnel and members of the gardai are offered vaccinations against this type.

Dr. O'Connor says there was a sharp increase in the incidence of whooping cough in Ireland 12 to 18 months ago, but cases have fallen in recent months.

However, in Britain there are warnings of an upsurge in the disease among children this winter, and such an epidemic could hit Ireland later, he added.

## ITALY

### 'Chinese' Flu Diagnosed Early in Season

91WE0106A Rome IL MESSAGGERO in Italian  
7 Nov 90 p 9

[Article by Luciano Ragno: "The 'Chinese' has Arrived; the Flu Virus Isolated in Rome"]

[Text] The vaccine is already available at drugstores and at USL's (local health units). Experts recommend immediate vaccination, beginning with those most prone to the illness. An epidemic might be in store by December.

The "Chinese" has arrived in Italy. Experts at the office of research on viruses of the Superior Institute of Health in Rome have isolated the first viruses in clinical samples taken from a married couple, one aged 76, the other 78 that exhibited clear influenza symptoms, namely high fever, sore throat, and a feeling of exhaustion. Following testing, the two viruses were found to belong to the A/HINI subtype.

This was an early arrival of the "Chinese", and was almost unexpected. "The virus stock" stated doctor Isabella Donatelli of the Virus Laboratory of the Superior Institute of Health, "appears to be very similar to the Taiwan type and nevertheless is contained in the vaccine presently available. Some researchers had been expecting the appearance of a viral stock labelled

"Guizhou," but for the moment, this has not happened: That stock may appear later on.

"Normally, in fact" continued Donatelli, "more types of viruses belonging to different subtypes can be found in circulation." In the past, it has never happened that the flu made such an early appearance, not even in the rest of Europe, so much so that prior to January, the presence of the flu had never been recorded; its peak points had been reached during the months of January, February and March. During the past few days, flu viruses have also been isolated in Finland and in Czechoslovakia. The 1990-91 flu vaccine is already available at the drugstore and local health units and is also suitable for flu stocks in addition to that isolated today.

Question: "Are you also in agreement that the flu has arrived much before its time?" The question is for Professor Pietro Crovari of the Institute for Hygiene of the University of Genoa, one of the major experts in the international field.

Answer: Isolating the two first viruses could mean that the "Chinese" may have appeared on the scene, namely that it has sent its scouts ahead, to then show up in the form of an epidemic toward the end of December so as to then pervade for the whole of January and February. However, only if the virus were to be found repeatedly within the next few days can we then state that the "Chinese" has in fact arrived ahead of its time.

Is everything in place for the vaccinations?

No changes: the flu vaccine available at drugstores and local health units is administered at no cost; it contains the virus stock that was isolated in Rome. I wish to remind you that the flu vaccination is to be taken as soon as possible and to be repeated in about 20 days for those that have never been vaccinated in the past.

"Only one vaccination on the other hand should be administered to those who have already been vaccinated in past years."

Today, at the Superior Council for Health, the topic of compulsory vaccination against measles is being discussed. The agreement reached will not have the force of a decision, and it can only propose the initiative to the Ministry of Health. The feeling is to introduce compulsory vaccination for the newborn and for children aged twelve.

## UNITED KINGDOM

### Over 11 Million UK Sheep Said to Have Scrapie

91WE0080 London THE DAILY TELEGRAPH  
in English 13 Oct 90 p 4

[Article by David Brown]

[Text] One in four sheep in Britain, about 11 million animals, might be infected with the brain disease scrapie

which is believed to have led to mad cow disease (BSE), a veterinary expert claimed yesterday.

But although the illness was widespread in British flocks, little was being done to tackle it, said Dr Kenton Morgan, lecturer at the Bristol University School of Veterinary Science.

Scrapie is believed to have spread to cattle in animal food containing the processed remains of diseased sheep. The practice has been banned.

A total of 18,795 cattle have died or been destroyed after being stricken by BSE, which is a notifiable disease.

Unlike BSE, scrapie is not a notifiable disease and there is no control programme, even though it has been known for more than 200 years. Both illnesses are incurable.

Commenting on the results of a survey he conducted into scrapie, published in THE VETERINARY RECORD, which suggested that about 25 percent of British sheep were affected, Dr Morgan said that controls were needed.

"Much of what was speculation is now supported by scientific evidence. The consequences of the transmission of scrapie to other species are clear from the experience of BSE, yet little is being done to monitor or control the disease in sheep."

The Ministry of Agriculture said the precise incidence of scrapie was unknown.